Leibniz-Institut für Astrophysik Potsdam

The Leibniz Institute for Astrophysics Potsdam (AIP) is dedicated to astrophysical questions ranging from the study of our sun to the development of the cosmos. Research focuses on cosmic magnetic fields and extragalactic astrophysics as well as the development of research technologies in the fields of spectroscopy, robotic telescopes and e-science. The AIP carries out its research mission within the framework of numerous national, European and international collaborations. The institute is the successor to the Berlin Observatory, founded in 1700, and the Astrophysical Observatory Potsdam, founded in 1874, which was the first institute in the world to dedicate itself explicitly to astrophysics. The AIP has been a member of the Leibniz Association since 1992. Around 200 employees work at our location in the middle of a beautiful park landscape in Potsdam, not far from Berlin.

The Cosmology and High-energy Astrophysics Section at the AIP invites applications for a

Postdoctoral Research Position (m/f/d) in Plasma-Astrophysics

for a project on plasma-kinetic simulations of cosmic ray transport in galaxies and clusters.

Overview

Funding for this position is provided by the European Research Council (ERC) through the PICOGGAL project *Mind the Gap: from Plasma Kinetics to Cosmological Galaxy Formation*. The project aims at studying a diverse set of problems ranging from the plasma physics of cosmic-ray transport, to exploring the impact of cosmic rays and magnetic fields on the formation and evolution of galaxies and clusters, to verifying the resulting non-thermal signatures. The postdoc will develop code, conduct particle-in-cell simulations of cosmic ray transport and plasma instabilities, and analyze them in the light of cosmic ray feedback in galaxies and acceleration processes in galaxy clusters.

Qualifications and position

Candidates with experience in theoretical and computational plasma-astrophysics and an interest (though not necessarily experience) in any of the aforementioned areas are encouraged to apply. Previous experience in running particle-in-cell simulations and a strong background in plasma physics is a plus. Applicants need to have a PhD in astrophysics, physics, or a closely related field by the beginning of the appointment. Additional funds are available for computational equipment and travel. The position is anticipated to start in September 2026, with the possibility of an earlier start (e.g. as early as January 2026), depending on individual arrangements. The initial appointment will be for two years.

Conditions

Salary and benefits are attractive and commensurate with those of public service organizations in Germany at the TV-L level E13, depending on the requirements of the collective agreement (professional experience and expertise). We also provide social benefits of the collective agreement for the public service (TV-L) incl. the company pension VBL with pension for reduced earning capacity and surviving dependents as well as a subsidy for the job ticket.

Application
To apply, please register at the AIP recruitment portal

https://jobs.aip.de/rec036

and follow the instructions to upload the following documents, all in PDF: a cover letter motivating your application, your curriculum vitae, a list of publications, a plan of future research (max. 3 pages) and past accomplishments (max. 2 pages), and the names of three individuals willing to provide reference letters upon request.

Applications received before **October 31, 2025** will receive full consideration. For questions on the offered position please contact Prof. Dr. Pfrommer at cpfrommer@aip.de

Equal opportunities are an integral part of personnel and organisational development at the AIP, therefore applications from women and men are equally welcome. People with disabilities will be given preferential consideration if they are equally qualified and skilled. The AIP values and promotes a respectful and tolerant working atmosphere. It has therefore adopted a Code of Conduct.

Your application documents will be kept for at least three months after completion of the appointment process. As a rule, your documents will be made available to a selection committee and to the committees and officers to be involved.

Leibniz-Gemeinschaft

TOTAL E-QUALITY